

3. I am not sure which is faster as they both seemed to work instantly.

Output:

```
● (base) frankie@cu-engr2-1-10-10 Lab1 % python3 test.py
the dot product of [1. 2.] and [-1. 0.5] is : 0.0
Matrix vector multiplication by "hand"
[[1 2]
 [3 4]] [5 6] =
[17. 39.]
[[ 1 2 3 4]
 [ 5 6 7 8]
 [ 9 10 11 12]
 [13 14 15 16]] [1 2 3 4] =
[ 30. 70. 110. 150.]
Matrix vector multiplication with numpy
[[1 2]
 [3 4]] [5 6] = [17 39]
[[ 1 2 3 4]
 [ 5 6 7 8]
 [ 9 10 11 12]
 [13 14 15 16]] [1 2 3 4] = [ 30 70 110 150]
○ (base) frankie@cu-engr2-1-10-10 Lab1 %
```